

THE IDENTITY OF THE VENOMOUS OCTOPUS RESPONSIBLE FOR A FATAL BITE AT DARWIN, NORTHERN TERRITORY

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At Darwin, Northern Territory, in 1954, a young man was bitten by an octopus near the base of his neck, and died soon afterwards. The animal responsible for inflicting the bite was lost, but another specimen supposedly identical with the venomous animal was captured soon afterwards and forwarded to the South Australian Museum. Flecker and Cotton (1955) reported the death and identified the octopus as *Octopus rugosus* Bosc, at the same time publishing a photograph of the preserved animal. Lane (1957, p. 175) reported that Dr. Grace Pickford had informed him that the name was not valid and had been used indiscriminately for a variety of specimens belonging to other species.

In a recent publication (McMichael, 1964, in press) I speculated that the species concerned might have been a member of the genus *Hapalochlaena* Robson, since the *Hapalochlaena* species common in south-eastern Australia, *H. maculosa* (Hoyle), is known to inflict venomous bites. Through the kindness of Dr. Helene Laws, Curator of Invertebrates, South Australian Museum, Adelaide, I have been able to borrow the specimen sent from Darwin as identical with the venomous individual for study. The following notes concern its identification.

The octopus is small, with a pyriform body and head, the latter continuing straight into the web dorsally and laterally, but separated by a depression ventrally. The posterior end of the body is drawn out into a small point.

The following features were noted: Length of Mantle, 44 mm. Maximum width of Mantle, 32.5 mm. Width Index, 74%. Interocular width, 26.5 mm. Interocular Index, 60%. Total Body Length, 115 mm. Arm Formula, 4, 3, 2, 1. Pallial Aperture, Type B. Gill Filaments, 6-7 on each side. Funnel Organ, W shaped. Sex, female. No suckers markedly enlarged. Web very deep, measuring approximately 29 mm., with longest arms measuring 53 mm. Web depth approximately the same in each sector. Ink sac very small, embedded in posterior end of liver with only a small portion showing on the ventral surface of the liver.

The colour of the animal is, at first sight, a fairly uniform dark grey above and fades to light brown on the ventral surface. However, closer examination reveals that definite, numerous, iridescent blue circles, about 10 mm. diameter, are scattered over the dorsal surface of the body and web. The rings can be seen when the animal is viewed in oblique light, or when the skin is stretched a little. The animal compares closely with a specimen from Port Darwin, Northern Territory (AM. C.13867), which, though properly relaxed and of a light grey-brown colour with prominent blue rings, is similar in proportion and general shape to the specimen under review. Another specimen from Vanderlin Island, Gulf of Carpentaria, is also dark above, light brown below and shows clearly the iridescent blue circles (AM. C.51484).

Reference to Robson's Monograph (1929, pp. 207-214) shows that the specimen conforms with the characteristics of the genus *Hapalochlaena*, and the specimen seems to fit with the description of *H. lunulata* Quoy and Gaimard, which was described from New Ireland, and which ranges along the North-West coast of Australia and into the islands to the North.

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The genus *Hapalochlaena* Robson, as at present known, includes only the two species, *lunulata* Q. and G., and *maculata* Hoyle, both of which are now known to inflict venomous bites. I have previously shown that the posterior "salivary" glands of *H. maculosa* are very large compared with the size of the buccal mass (McMichael, 1964, in press) and it may well be that this enlargement is correlated with the production of a highly toxic venom, which can be regarded as a characteristic of the genus.

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